AMENDMENT TO THE CLAIMS

Please replace the claims with the following rewritten listing:

1. (Canceled)

2. (Currently Amended) ~~The~~An active matrix type display device comprising:~~according~~ to claim ~~1~~

a plurality of gate lines;

a plurality of data lines crossing said plurality of gate lines;

a plurality of pixel electrodes;

a thin film transistor disposed at each intersection between said plurality of gate lines and said plurality of data lines, and including a gate electrode and an active region, said gate electrode being connected to one of said plurality of gate lines, and said active region having a first region connected to one of said plurality of data lines and a second region connected to a corresponding one of said plurality of pixel electrodes; and

a gate line driver for sequentially applying a gate selection signal with a pulse-shaped voltage waveform to a selected one of said plurality of gate lines; wherein

said gate line driver causes a falling edge of said gate selection signal with said pulse-shaped voltage waveform to be smoother than a rising edge thereof;

wherein said gate selection signal requires at least a time t/2 to fall, where t is the time from when a first gate line assumes an unselected state to when subsequent second gate line assumed a selected state.

3. (Canceled)

4. (Currently Amended) ~~The~~An active matrix type display device comprising:~~according~~ to claim ~~1~~;

a plurality of gate lines;

a plurality of data lines crossing said plurality of gate lines;

a plurality of pixel electrodes;

a thin film transistor disposed at each intersection between said plurality of gate lines and said plurality of data lines, and including a gate electrode and an active region, said gate electrode being connected to one of said plurality of gate lines, and said active region having a first region connected to one of said plurality of data lines and a second region connected to a corresponding one of said plurality of pixel electrodes; and

a gate line driver for sequentially applying a gate selection signal with a pulse-shaped voltage waveform to a selected one of said plurality of gate lines; wherein

said gate line driver causes a falling edge of said gate selection signal with said pulse-shaped voltage waveform to be smoother than a rising edge thereof;

wherein said gate line driver includes a gate buffer provided at a final stage and connected to a corresponding one of said plurality of gate lines,

said gate buffer includes a transistor having first and second regions of an active layer respectively connected to the ground and to said corresponding gate line, and

the condition, $2.5(R1+R2)*(C1+C2) < t < 5(R1+R2)*(C1+C2)$, is satisfied, wherein

R1 represents a total resistance of said gate line and the gate electrodes of the thin film transistors connected to said gate line in a pixel region,

C1 represents a total capacitance of capacitors connected to said gate line in the pixel region and having said gate line as one electrode,

R2 represents a channel resistance of the transistor in said gate buffer,

C2 represents a capacitance of a capacitor formed by said active layer of the transistor in said gate buffer and the gate electrode of said transistor, and

t represents a flyback period in a horizontal scanning period.

5. (Original) The active matrix type display device according to claim 4, wherein a channel length L and a channel width W of the transistor in said gate buffer satisfy the condition $W/L < 1$.

6. (Currently Amended) ~~The~~An active matrix type display device comprising: ~~according to claim 1,~~

a plurality of gate lines;

a plurality of data lines crossing said plurality of gate lines;

a plurality of pixel electrodes;

a thin film transistor disposed at each intersection between said plurality of gate lines and said plurality of data lines, and including a gate electrode and an active region, said gate electrode being connected to one of said plurality of gate lines, and said active region having a first region connected to one of said plurality of data lines and a second region connected to a corresponding one of said plurality of pixel electrodes; and

a gate line driver for sequentially applying a gate selection signal with a pulse-shaped voltage waveform to a selected one of said plurality of gate lines; wherein

said gate line driver causes a falling edge of said gate selection signal with said pulse-shaped voltage waveform to be smoother than a rising edge thereof;

wherein, said gate line driver includes a gate buffer provided at a final stage and connected to a corresponding one of said plurality of gate lines,

said gate buffer includes a transistor having first and second regions of an active layer respectively connected to the ground and to said corresponding gate line, and

a channel length L and a channel width W of the transistor in said gate buffer satisfy the condition $W/L < 1$.

7. (Currently Amended) The An active matrix type display device comprising: ~~according to claim 1,~~

a plurality of gate lines;

a plurality of data lines crossing said plurality of gate lines;

a plurality of pixel electrodes;

a thin film transistor disposed at each intersection between said plurality of gate lines and said plurality of data lines, and including a gate electrode and an active region, said gate electrode being connected to one of said plurality of gate lines, and said active region having a first region connected to one of said plurality of data lines and a second region connected to a corresponding one of said plurality of pixel electrodes; and

a gate line driver for sequentially applying a gate selection signal with a pulse-shaped voltage waveform to a selected one of said plurality of gate lines; wherein

said gate line driver causes a falling edge of said gate selection signal with said pulse-shaped voltage waveform to be smoother than a rising edge thereof;

wherein, said gate line driver includes a gate buffer provided at a final stage and connected to a corresponding one of said plurality of gate lines,

said gate buffer includes a current supplying transistor having first and second regions of an active layer connected between a power source and said corresponding gate line, and a current discharging transistor having first and second regions of an active layer respectively connected to the ground and to said corresponding gate line, and

the ratio (channel width W) / (channel length L) of said current supplying transistor differs from the ratio (channel width W) / (channel length L) of said current discharging transistor.

8. (Original) The active matrix type display deice according claim 7, wherein

the condition, $2.5(R1+R2)*(C1+C2) < t < 5(R1+R2)*(C1+C2)$ is satisfied wherein

R1 represents a total resistance of said gate line and the gate electrodes of the thin film transistors connected to said gate line in a pixel region,

C1 represents a total capacitance of capacitors connected to said gate line in the pixel region and having said gate line as one electrode,

R2 represents a channel resistance of the current discharging transistor in said gate buffer,

C2 represents a capacitance of a capacitor formed by said active layer of the current discharging transistor in said gate buffer and the gate electrode thereof, and

t represents a flyback period in a horizontal scanning period.

9. (Original) The active matrix type display device according to claim 8, wherein the channel length L and the channel width W of the current discharging transistor in said gate buffer satisfy the condition $W/L < 1$.

10. (Original) The active matrix type display device according to claim 8, wherein the condition that the ratio of (the ratio W/L of said current supplying transistor) / (the ratio W/L of said current discharging transistor) is greater than 1 is satisfied.

11. (Original) The active matrix type display device according to claim 8, wherein the condition that the ratio of (the ration W/L of said current supplying transistor) / (the ratio of said current discharging transistor) is greater than 5 is satisfied.

12. (Canceled)

13. (Currently Amended) ~~The~~An active matrix type display device comprising:~~according to claim 12~~

a plurality of gate lines;

a plurality of data lines crossing said plurality of gate lines;

a plurality of pixel electrodes;

a thin film transistor disposed at each intersection between said plurality of gate lines and said plurality of data lines, and including a gate electrode and an active region, said gate electrode being connected to one of said plurality of gate lines, and said active region having a first region connected to one of said plurality of data lines and a second region connected to a corresponding one of said plurality of pixel electrodes; and

a gate line driver for sequentially applying a gate selection signal with a pulse-shaped voltage waveform to a selected one of said plurality of gate lines; wherein

said gate line driver causes a falling time of said gate selection signal to be longer than a rising time thereof;

wherein said gate selection signal requires at least a time t/2 to fall, where t is a time from when a first gate line assumes an unselected state to when a subsequent second gate line assumes a selected state.

14. (Canceled)

15. (Currently Amended) ~~The~~An active matrix type display device comprising: ~~according to claim 12;~~

a plurality of gate lines;

a plurality of data lines crossing said plurality of gate lines;

a plurality of pixel electrodes;

a thin film transistor disposed at each intersection between said plurality of gate lines and said plurality of data lines, and including a gate electrode and an active region, said gate electrode being connected to one of said plurality of gate lines, and said active region having a first region connected to one of said plurality of data lines and a second region connected to a corresponding one of said plurality of pixel electrodes; and

a gate line driver for sequentially applying a gate selection signal with a pulse-shaped voltage waveform to a selected one of said plurality of gate lines; wherein

said gate line driver causes a falling time of said gate selection signal to be longer than a rising time thereof;

wherein said gate line driver includes a gate buffer provided at a final stage and connected to a corresponding one of said plurality of gate lines,

said gate buffer includes a transistor having first and second regions of an active layer respectively connected to the ground and to said corresponding gate line, and

the condition, $2.5(R1+R2)*(C1+C2) < t < 5(R1+R2)*(C1+C2)$, is satisfied, wherein

R1 represents a total resistance of said gate line and the gate electrodes of the thin film transistors connected to said gate line in a pixel region,

C1 represents a total capacitance of capacitors connected to said gate line in the pixel region and having said gate line as one electrode,

R2 represents a channel resistance of the transistor in said gate buffer,

C2 represents a capacitance of a capacitor formed by said active layer of the transistor in said gate buffer and the gate electrode of said transistor, and

t represents a flyback period in a horizontal scanning period.

16. (Original) The active matrix type display device according to claim 15, wherein a channel length L and a channel width W of the transistor in said gate buffer satisfy the condition $W/L < 1$.

17. (Currently Amended) The An active matrix type display device comprising: ~~according to claim 12,~~

a plurality of gate lines;

a plurality of data lines crossing said plurality of gate lines;

a plurality of pixel electrodes;

a thin film transistor disposed at each intersection between said plurality of gate lines and said plurality of data lines, and including a gate electrode and an active region, said gate electrode being connected to one of said plurality of gate lines, and said active region having a first region connected to one of said plurality of data lines and a second region connected to a corresponding one of said plurality of pixel electrodes; and

a gate line driver for sequentially applying a gate selection signal with a pulse-shaped voltage waveform to a selected one of said plurality of gate lines; wherein

said gate line driver causes a falling time of said gate selection signal to be longer than a rising time thereof;

wherein, said gate line driver includes a gate buffer provided at a final stage and connected to a corresponding one of said plurality of gate lines,

said gate buffer includes a transistor having first and second regions of an active layer respectively connected to the ground and to said corresponding gate line, and

a channel length L and a channel width W of the transistor in said gate buffer satisfy the condition $W/L < 1$.

18. (Currently Amended) The An active matrix type display device comprising: ~~according to claim 12,~~

a plurality of gate lines;

a plurality of data lines crossing said plurality of gate lines;

a plurality of pixel electrodes;

a thin film transistor disposed at each intersection between said plurality of gate lines and said plurality of data lines, and including a gate electrode and an active region, said gate electrode being connected to one of said plurality of gate lines, and said active region having a first region connected to one of said plurality of data lines and a second region connected to a corresponding one of said plurality of pixel electrodes; and

a gate line driver for sequentially applying a gate selection signal with a pulse-shaped voltage waveform to a selected one of said plurality of gate lines; wherein

said gate line driver causes a falling time of said gate selection signal to be longer than a rising time thereof;

wherein, said gate line driver included a gate buffer provided at a final stage and connected to a corresponding one of said plurality of gate lines,

said gate buffer includes a current supplying transistor having first and second regions of an active layer connected between a power source and said corresponding gate line, and a current discharging transistor having first and second regions of an active layer respectively connected to the ground and to said corresponding gate line, and

the ratio (channel width W) / (channel length L) of said current supplying transistor differs from the ratio (channel width W) / (channel length L) of said current discharging transistor.

19. (Original) The active matrix type display device according to claim 18, wherein

the condition, $2.5(R1+R2)*(C1+C2) < t < 5(R1+R2)*(C1+C2)$, is satisfied wherein

R1 represents a total resistance of said gate line and the gate electrodes of the thin film transistors connected to said gate line in a pixel region,

C1 represents a total capacitance of capacitors connected to said gate line in the pixel region and having said gate line as one electrode,

R2 represents a channel resistance of the current discharging transistor in said gate buffer,

C2 represents a capacitance of a capacitor formed by said active layer of the current discharging transistor in said gate buffer and the gate electrode thereof, and

t represents a flyback period in a horizontal scanning period.

20. (Original) The active matrix type display device according to claim 18, wherein the channel length L and the channel width W of the current discharging transistor in said gate buffer satisfy the condition $W/L < 1$.

21. (Original) The active matrix type display device according to claim 18, wherein the condition that the ratio of (the ratio W/L of said current supplying transistor) / (the ratio W/L of said current discharging transistor) is greater than 1 is satisfied.

22. (Original) The active matrix type display device according to claim 18, wherein the condition that the ratio of (the ratio W/L of said current supplying transistor) / (the ratio W/L of said current discharging transistor) is greater than 5 is satisfied.